

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

#### (PCT Article 36 and Rule 70)

Applicant's or agent's file reference E052992-AT	<b>FOR FURTHER ACTION</b>	
See Form PCT/IPEA/416		
International application No. PCT/IT 03/00397	International filing date (day/month/year) 26.06.2003	Priority date (day/month/year) 26.06.2003
International Patent Classification (IPC) or national classification and IPC B65B59/04		
Applicant SIG TECHNOLOGY LTD.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of 4 sheets, as follows:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</li> <li><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</li> </ul> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)), containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>		
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the opinion</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul>		
Date of submission of the demand 05.01.2005	Date of completion of this report 09.09.2005	
Name and mailing address of the international preliminary examining authority: European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 -2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Vigilante, M  Telephone No. +31 70 340-2902	
 		

INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITYInternational application No.  
PCT/IT 03/00397

IAP13 Rec'd PCT/PTO 12 DEC 2005

## Box No.1 Basis of the report

- With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
    - international search (under Rules 12.3 and 23.1(b))
    - publication of the international application (under Rule 12.4)
    - international preliminary examination (under Rules 55.2 and/or 55.3)
- With regard to the **elements\*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article-14 are referred to in this report as "originally filed" and are not annexed to this report*):
  - 1-13 as originally filed
  - 1-16 received on 11.08.2005 with letter of 11.08.2005
  - 14-4/4 as originally filed

## Description, Pages

1-13 as originally filed

## Claims, Numbers

1-16 received on 11.08.2005 with letter of 11.08.2005

## Drawings, Sheets

14-4/4 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

- The amendments have resulted in the cancellation of:
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
  - the description, pages
  - the claims, Nos.
  - the drawings, sheets/figs
  - the sequence listing (*specify*):
  - any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/IT 03/00397

---

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	1-16
	No: Claims	
Inventive step (IS)	Yes: Claims	1-16
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

10/560248

IAP13 Rec'd REC'D 12 DEC 2005  
International application No.

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

PCT/IT 03/00397

**Re Item V.**

- 1 Reference is made to the following documents:  
D1: US-A-4 371 175 (VAN DYK JR GARRITT C) 1 February 1983 (1983-02-01)
- 2 Document D1, which is considered to represent the most relevant state of the art, discloses a protective structure for an apparatus for the handling of containers comprising a frame (14,16), panels (12) for insulating it from the external environment, fastened to said frame (12) by fastening means (18) which create a gap between said frame (14,16) and said panels (12), and gasket means (20) arranged in said gap, said gasket means comprising a tubular gasket wall (46) which can be expanded by forcing in fluids under pressure.

From this, the subject-matter of independent claim 1 differs in that in nonoperating conditions the gasket wall become separated from the surface of the frame and of the panel, therefore ceasing to have any contact with the protective structure; opposite ends of said gasket wall being fastened respectively to top and bottom portions of the frame, thereby holding in position said gasket wall.

- 2.1 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)

The problem to be solved by the present invention may be regarded as: how to further improve the easy maintenance and the cleaning of the machine's protective structure.

- 2.2 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:  
no suggestion or hints is shown in the prior art is given pointing the skilled person toward the proposed solution. Starting from the gasket of D1 and considering the above problem the skilled person would not arrive to claim 1.
- 2.3 Claims 2-16 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.  
**PCT/IT 03/00397**

10/560248

IAP13 Rec'd PCT/PTO 12 DEC 2005  
EPO - DG 1

14

17.08.2005

(45)

CLAIMS

1. A protective structure (1) for an apparatus for the handling of containers comprising a frame (2), panels (9) for insulating it from the external environment, fastened to said frame (2) by fastening means (10) which create a gap between said frame (2) and said panels (9), and gasket means arranged in said gap, said gasket means comprising a tubular gasket wall (11) which can be expanded by forcing in fluids under pressure, characterised in that in non-operating conditions the gasket wall (11) become separated from the surface of the frame (2) and of the panel (9), therefore ceasing to have any contact with the protective structure; opposite ends of said gasket wall being fastened respectively to top and bottom portions of the frame (2), thereby holding in position said gasket wall.
2. A protective structure according to claim 1 in which said gasket wall (11) in operating conditions ~~are~~is expanded by a supply of said fluids under pressure until they engage to form a seal with the surfaces of said panels (9) and said frame (2).
3. A protective structure according to claim 1 or 2 in which said gasket wall (11) are closed at both ends.

4. A protective structure according to claim 3 in which said gasket wall (11) ~~have~~has an ovoid or elliptical shape in cross-section.
5. A protective structure according to any one of the preceding claims in which said gasket wall (11) ~~are~~is of elastic material.
6. A protective structure according to claim 5 in which said gasket wall (11) ~~are~~is formed from an elastomer resistant to sterilising products.
7. A protective structure according to claim 5 or 6 in which said gasket wall (11) ~~are~~is formed from polyurethane elastomers compatible with food processing applications.
8. A protective structure according to claim 1 in which said gasket wall (11) ~~are~~is in connection with means of supplying fluids under pressure.
9. A protective structure according to claim 8 in which said means of supplying fluids under pressure are compressors for the supply of compressed air.
10. A protective structure according to claim 8 or 9 in which the connection between said gasket wall (11) and said means of supplies of fluids under pressure is made by means of tubes which are inserted into small holes arranged on the surface of said gasket wall (11).

11. A protective structure according to claims 8 to 10 in which the connection between said gasket wall (11) and said means for supplies of fluids under pressure is in series or in parallel.
12. A protective structure according to claim 1 in which said panels (9) are fastened to said frame (2) in a fixed manner.
13. A protective structure according to claim 1 in which said panels (9) are fastened to said frame (2) in a movable manner.
14. A protective structure according to claim 13 in which said fastening means (10) comprise hingeing means and locking means.
15. A protective structure according to claim 13 in which said fastening means (10) comprise guidance means (10a) and sliding means (10b) which engage slidably in said guidance means (10a).
16. The protective structure according to claim 1, wherein said frame comprises a plurality of uprights (4) connected at the upper end by a perimeter edge (6) and by reinforcing bars (7, 8), the ends of the gasket wall being fastened, respectively, to one of the uprights or to the perimeter edge at the top, and to one of the reinforcing bars at the

bottom of the protective structure.

17. A gasket device, suitable for creating a sealing and noise barrier between an internal environment and an external environment, comprising a gasket wall (11) which extends along the entire joint surface of two elements (9;4) spaced apart from each other characterised in that said wall in non-operating conditions does not adhere to said joint surfaces (9;4) and that in operating conditions, said wall is expanded by being supplied with fluids under pressure until it engages to form a seal with said surfaces of the spaced apart elements.